<u>**Amendments to Claims**</u>

This listing of claims will replace all prior versions, and listings of claims in the application.

1-14. (Canceled)

15. (Currently amended) A method for analyzing a surface of a sample comprising:

producing an electron beam with a field emission source ~~for~~ to ~~exciting~~ excite a surface of the sample so that electrons are emitted therefrom;

filtering the electron beam using a monochromator energy filter;

receiving on an inlet of an energy analyzer the electrons emitted from the excited surface of the sample, with the emitted electrons producing a spectrum representative of a distribution of kinetic energies of the emitted electrons over the inlet; ~~and~~

detecting the emitted electrons traveling through the energy analyzer for reproducing the distribution of the kinetic energies of the emitted electrons;

<u>identifying a characteristic kinetic energy associated with a peak of the reproduced distribution of the kinetic energies of the emitted electrons; and</u>

<u>determining a chemical bond energy of the surface of the sample based at least in part on the identified characteristic kinetic energy.</u>

16. (Previously presented) A method according to claim 15, wherein the detector reproduces the distribution of the kinetic energies of the emitted electrons along at least a direction orthogonal to a radial direction of said energy analyzer.

17. (Previously presented) A method according to claim 15, wherein the energy analyzer comprises a spherical capacitor energy analyzer.

18. (Previously presented) A method according to claim 15, wherein the monochromator energy filter reduces energy dispersion of the electrons of the electron beam to less than 0.2 eV.

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19. (Previously presented) A method according to claim 15, wherein the monochromator energy filter reduces energy dispersion of the electrons of the electron beam to less than 0.1 eV.

20. (Previously presented) A method according to claim 15, wherein the surface of the sample being excited by the electronic beam has linear dimensions less than or equal to 100 nanometers.

21. (Previously presented) A method according to claim 15, wherein the field emission source comprises a Schottky emission source.

22. (New)   A method according to claim 15, wherein said determining further comprises:

determining the chemical bond energy according to $BE = h\nu - KE - \Omega$, where BE is the chemical bond energy, $h\nu$ is an energy of the electron beam, KE is the characteristic kinetic energy, and Ω is an extraction energy.

23. (New)   A method according to claim 15, further comprising:

providing a visualization of the surface based at least in part on the emitted electrons traveling through the energy analyzer.